

## PATENT CLAIMS

1. Variable field device for process automation, including a sensor module SM for measured-value detection and a signal processing module SPM connected thereafter and a processor module PM, which is connected with a communications module CU for connection of the field device with a superordinated control-evaluation unit, characterized in that the signal processing module SPM and the processor module PM are provided in the form of a reprogrammable logic device LD.
2. Variable field device as claimed in claim 1, characterized in that the reprogrammable logic device LD includes parts of the communication module CU.
3. Variable field device as claimed in one of the preceding claims, characterized in that the reprogrammable logic device includes parts of the sensor module SM.
4. Variable field device as claimed in one of the preceding claims, characterized in that the reprogrammable logic device LD includes all digitally working components of the sensor module SM.
5. Variable field device as claimed in one of the preceding claims, characterized in that the reprogrammable logic device LD includes at least one embedded processor EP, one memory M and one logic L.
6. Variable field device as claimed in one of the preceding claims, characterized in that the reprogrammable logic device LD serves, in operation, as an SOPC-system (system-on-a-programmable-chip).
7. Variable field device as claimed in one of the preceding claims, characterized in that the communications module CU has a data bus interface (e.g. Profibus®,

Foundation Fieldbus®, CAN®-Bus) or one or more analog inputs/outputs I/O's (e.g. frequency output, pulse output).

8. Variable field device as claimed in one of the preceding claims, characterized in that a function block is loaded into the reprogrammable logic device LD.

9. Variable field device as claimed in claim 8, characterized in that the function block is a Flexible Function Block of Foundation Fieldbus' or a Profibus' function block.